

19990405.ba v02_n491.bam.990405 v02_n492.bam.990405

>From ???@??? Mon Apr 05 15:36:59 1999
Message-Id: <199904051307.IAA03262@sco.theporch.com>
Date: Mon, 5 Apr 1999 08:06:43 CDT
From: Old Tube Radios <boatanchors@theporch.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: BOATANCHORS digest 2491

BOATANCHORS Digest 2491

Topics covered in this issue include:

- 1) FS:CW 330 Radio covers
by Paul Thekan <Paul.Thekan@eimac.cpii.com>
- 2) SCOTT RADIO FS
by John M Iverson <jackiv@juno.com>
- 3) Diode replacements for 866's
by Jim Coe <jcoe@brightok.net>
- 4) Re: Fun with the Eddystone
by "Terry O'Laughlin" <terryo@wort-fm.terracom.net>
- 5) Re: TESTING PWR TUBES
by Tom Smith <tsmith@hal-pc.org>
- 6) Twin-Lead in PVC pipe?
by Scott Townley <nx7u@primenet.com>
- 7) Two Transmitter Weekend
by Dick Dillman <ddillman@igc.apc.org>
- 8) WTB RBB osc. box
by JESelkregg@aol.com
- 9) Another Source of RFI
by "Tom Bowes" <kk8m@home.com>
- 10) Re: Twin-Lead in PVC pipe?
by "Arden Allen" <gumbear@pacbell.net>
- 11) Other surplus in Lima area????
by Tom Norris <badger@telalink.net>
- 12) HQ-120 question
by Jack Antonio <dia@dia.reno.nv.us>
- 13) Manual needed: Peak PD-11 preselector
by JONWEINER@aol.com
- 14) Re: HQ-120 question
by Al Klase <skywaves@bw.webex.net>
- 15) Re: to be or not to be
by John Kolb <jlkolb@cts.com>
- 16) My Son's Depiction of a Boatanchor
by <davidh@getnet.com>
- 17) Re: Twin-Lead in PVC pipe?
by Dan Martin <dmartin@visuallink.com>
- 18) Re: HQ-120 question

by "Mike B. Feher" <n4fs@monmouth.com>
19) Re: to be or not to be
by "Arden Allen" <gumbear@pacbell.net>
20) Re: HQ-120 question
by Richard Post <post@ouvaxa.cats.ohiou.edu>

Message-Id: <199904041826.LAA10641@scottie.eimac.cpii.com>
Date: Sun, 04 Apr 1999 11:12:54 -0700
To: Old Tube Radios <boatanchors@theporch.com>
From: Paul Thekan <Paul.Thekan@eimac.cpii.com>
Subject: FS:CW 330 Radio covers
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

I have a few of these covers in nice condition. They are used to cover the VRC 8-9-10 radio sets. That would be the RT 66 or 67 or 68 and a PP 109 or 122 supply.
\$20 ea , shipping paid in CONUS.

Tnx
Paul

To: Old Tube Radios <boatanchors@theporch.com>
Cc: marconifon@aol.com, k9gaw@juno.com, Gsj495@aol.com
Date: Sun, 4 Apr 1999 14:49:49 -0500
Subject: SCOTT RADIO FS
Message-ID: <19990404.144949.9182.2.jackiv@juno.com>
From: John M Iverson <jackiv@juno.com>

I have an E H Scott "masterpiece" radio fs. this is a real boatanchor, 14 tubes 5 bands, even get ch2 tv sound on hi band. Chicago area only reply direct. thakns all.

73 jack
Jack Iverson K0EWU jackiv@juno.com
ARRL, IEEE LM, RCA, AMI, ARCI, QCWA

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Message-Id: <199904042056.PAA23327@boomer.brightok.net>
Date: Sun, 04 Apr 1999 15:57:44 -0500
To: Old Tube Radios <boatanchors@theporch.com>

From: Jim Coe <jcoeb@brightok.net>
Subject: Diode replacements for 866's
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Well, my search has been frustrating....so I thought
I'd better toss it up to the Great All Knowing list members!

Apparently, the different mfgs all used their own numbers
for the molded, tube-like semiconductor (shhhhhh.....) diode
replacement units for the 866 mercury vapor rectifiers and
other BA rectifiers. They also tended not to put their logos
on the darn things (were they ashamed?) I've been trying to
find and catalog all the various units and their specs/applications
with very little luck.

Maybe if we all contribute what we have found, we can build
a list and maybe Jack will let us put it in the archives.....

So far, I have found the following:

SSR13	USA made, mil spec?
1N1239	5R4/5U4 2800V, 1 amp
1N1238	5Y3/5V4/5Z4 1600V, 0.75 amp
1N2637	866/3B28

Rather than clog up the list and make Jack mad, please email
me directly with info, I will compile it and issue a summary back
to the list.

All help will be greatly appreciated even if it is just to tell
me where I can go to find this info.

Thanks es 73's.....Jim

Jim Coe W5JI Hollowstaters should never tell their
Davis, OK 73030 paramours that the glow in their
QCWA, Extra eyes remind them of a favorite radio!

Message-Id: <3.0.3.32.19990404165808.007a9d90@wort-fm.terracom.net>
Date: Sun, 04 Apr 1999 16:58:08 -0500
To: Old Tube Radios <boatanchors@theporch.com>
From: "Terry O'Laughlin" <terryo@wort-fm.terracom.net>
Subject: Re: Fun with the Eddystone
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

I have an Eddystone 680SX and the audio quality is very nice. I have it connected to a Yamaha hi-fi speaker and it is a favorite SWL rig. The 680SX is like the SP-600 only it is smaller, lighter, and engineered better.

If you want to see one of these very rare radios, I'll have my Eddystone 680SX on display at the MARA hamfest in Madison, WI next Sunday (it is not for sale). It will be part of the Madison Area Technical College display table.

73 Terry O' WB9GVB

Message-ID: <37079070.8633220C@hal-pc.org>
Date: Sun, 04 Apr 1999 16:16:48 +0000
From: Tom Smith <tsmith@hal-pc.org>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: TESTING PWR TUBES
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Paul Bernhardt wrote:

> Morry and Jack,
> The GE Ham News that describes Transmitter Tube Testing is Vol. 6 No. 3
> May-June 1951. Tests are given for 2E26, 4-125A, 4-250A, 35T, 100TH,
> 203A, 211, 592, 805, 806, 807, 810, 811A, 812A, 813, 814, 815, 829B, 832A,
> 837, 838, 8000, 8005. Tests are (1) Continuity and Short, (2) Static
> Characteristic, and (3) 14 Magacycle Power Oscillation Test. Length of
> article is 8 pages. A self addressed stamped envelope (9 inches by 12
> inches) gets a xerox copy. Please send no money, just put the proper
> postage on the envelope along with a legibly written address and the words
> "ham news article" in the lower left corner.
> Paul Bernhardt
>

Great stuff on the power tubes. There is one tube missing that I've been struggling with for a few weeks now. It's the 826 and of course is listed in the handbook, but not on any of the testers that I own, ie 539b, the western Electric equivalent to the 539b and the TV-7. I do have the socket adapter and can probably get fairly close with the handbook data but it would be nice if someone has numbers for the TV-7 or something. I've been trying to match up several for a Gonset 6 meter amp. Any help would be greatly appreciated.

Thanks! Tom N5AMA

Message-Id: <3.0.6.32.19990404152733.009127e0@pop.primenet.com>
Date: Sun, 04 Apr 1999 15:27:33
To: Old Tube Radios <boatanchors@theporch.com>
From: Scott Townley <nx7u@primenet.com>
Subject: Twin-Lead in PVC pipe?
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Silly question:

Any reason not to route 450-ohm "transmitting" ladder line thru a PVC pipe?
Want to do it for purely cosmetic purposes.

Thanks

Scott Townley
nx7u@primenet.com
Gilbert, AZ

Collector of:

Stoddard Aircraft EMI/RFI receivers and accessories
Big Parts for that Big Linear Amp
70's era RF test equipment HP/GR/Tek
Radio-related technical reference material 1940+
<http://www.primenet.com/~nx7u> (someday might have useful info!)

Date: Sun, 4 Apr 1999 15:33:12 -0700 (PDT)
Message-Id: <2.2.16.19990404152125.0dc760d8@pop.igc.org>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
To: Old Tube Radios <boatanchors@theporch.com>
From: Dick Dillman <ddillman@igc.apc.org>
Subject: Two Transmitter Weekend

It was a big day for transmitters for me this weekend.

First, on Saturday, five years of planning, hard work and negotiating government bureaucracy paid off when KWMR, a new station in Pt. Reyes Station, CA radiated its first RF on 90.5MHz. A 50ft. telephone pole was planted last week (and made the front page of the Pt. Reyes Light!). Then the teensy little single bay antenna was mounted and about 350ft. (yep!) of 7/8" coax run to the studio where a Crown 500W transmitter awaited.

The transmitter for the last station I put on was all tubes and it took months of weekends for us to get poor, sad, used thing working. In contrast I just threw the switch on the Crown, which only takes up 9" of rack space

and bam! 530W on the meter, dead on frequency. An amazing box, complete with stereo generator and audio processing. Truly plug and play.

Then we all jumped in the car and rode around to see how it sounded and test the range. The range was beyond what i had expected and it sounded great.

At the other end of the technology scale, Tom and I applied power for the first time to the ET-8023-X HF transmitter of the Radiomarine 4U Victory ship radio console we're restoring to operational status for the San Francisco Maritime Museum. This was far from a plug and play operation.

The HV DC for the transmitter plates and the 120V AC for the filament transformer are all derived from a motor generator that requires 120VDC to run. We tried to start the MG set that came with the transmitter last weekend. It hummed, tried to run backwards and then blew all the breakers on Tom's 120VDC power supply.

But of course we had a spare MG set in stock. After quite a but of grunting and some mild swearing the old MG set was removed and the new one bolted in its place in the bottom of the rack.

Upon the application of 120VDC clack! the main contactor pulled in, then the clockwork starting mechanism began running, progressively cutting out two stages of series resistance and the MG set mmmmmrrrrrrEEEEEE! came up to speed. The filaments in the two 813s glowed. The panel meters came to life. We adjusted the rheostats for 1,400V DC and 10V AC respectively. After being dead for 30 years the MG set and the transmitter came to life as if we had just come back to the radio room after dinner. Okay, we have put in months of restoration work up to this point but it was mostly cleaning and minor re-wiring. The old girl's insulation and condensers had no problem with 1,400V and she just stood there waiting for us to make our next move. Like any good radiomen we decided to tune her up.

Tom clipped a 350W light bulb across the output and I selected one of the seven available crystals. The TUNE toggle switch caused indications of grid drive and cathode current to become apparent on the various meters as the BUFFER, PA TUNE, COUPLING and LOADING controls were turned of furiously cranked as required.

And yes, that lamp lit to full brilliance and more.

My only disappointment is that the keying sounds absolutely fine in the monitor receiver. Judging from the grunt the MG set gives when you press the hep I was hoping for at least a little bit of yoop in the keying. But no, it sounds as if she will present herself well on the bands.

Regards,

Dick

Dick Dillman
<ddillman@igc.apc.org>
WPE2VT W6AWO
Collector Of Heavy Metal:
Harleys, Willys and Radios Over 100lbs.

From: JESelkregg@aol.com
Message-ID: <36790938.24395276@aol.com>
Date: Sun, 4 Apr 1999 19:40:38 EDT
Subject: WTB RBB osc. box
To: Old Tube Radios <boatanchors@theporch.com>
MIME-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
Content-Transfer-Encoding: 7bit

I am looking for an oscillator box for a military RBB receiver, also the square drive that couples the band switches together in the RBB osc, mixer, rf1 and rf2 boxes. Also looking for ps to receiver interconnecting cables. I can purchase or have all or part of an RBC-5 for trades.

Any spares out there?

Thank you,
Joe Selkregg

Message-ID: <001201be7ef6\$1f356480\$b0d60218@mcmb1.mi.home.com>
From: "Tom Bowes" <kk8m@home.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Another Source of RFI
Date: Sun, 4 Apr 1999 18:51:53 -0500
MIME-Version: 1.0
Content-Type: text/plain;
charset="Windows-1252"
Content-Transfer-Encoding: 7bit

Howdy folks,

Just thought I would spread the word about a new potential source for RFI that as of yet I haven't heard much about. I spent all of last Saturday putting up a dipole for 160 meters. Things went fine on the transmitter end, less than 2:1 SWR at 1.888 MHz, so I figured it was time to make a contact or two. The only problem was that my receiver had all-of-a-sudden developed a case of some sort of demon possession. The noise level was horrendous at

S-9 plus. I managed to make a contact with Ken, K8TV, near Cleveland, but had to sign off as I just couldn't hear him well enough to carry on. The funny thing was that we were both running the same type of transmitter, and he claimed that I had an armchair copy signal on his end. Hmmm...hadn't had this problem before when I was spending all of my time on 80 meters and above. I also had noticed that the noise emanating from my receiver had a strange, rhythmic pulsing to it, in addition to the overall raspy sort of square wave tone coming out of it. The pulsations were at intervals of about one second and were superimposed on top of the rest of the racket.

I disconnected the antenna from the Drake R-8A receiver, and attached a 20' piece of coax. I had a hunch that the source of interference was from my cable TV system, so I removed the terminating resistor from the nearest CATV port, (of course I know that all of you all keep your cable lines terminated when not in use!), inserted a .001 uF cap into the connector and touched the center conductor of the coax to the other lead of the capacitor. I once again was inundated with the dreaded growling, buzzing, thrumming, sawing, pulsing, freaking noise! "Getting closer", I thought. I was beginning to suspect that my recent switch from a phone line based ISP, to the local cable company's Internet service might have something to do with the problem.

I grabbed my Sony ICF-2010 portable shortwave set and went up into my computer room. I left the antenna in the retracted position, set the rig to 1.888, and started "sniffing" around the various electronic devices in the computer room. As soon as I got the receiver near the cable modem's power supply the signal strength meter lit up, and the radio started making the same horrible noise as the one downstairs. I unplugged the power supply and the noise was gone from the portable immediately. I went back down to the shack and tuned around the bands a bit. Here and there I could detect a bit of the same pulsing noise, probably caused by other cable modem power supplies in the neighborhood. I returned to the computer room to do a bit more investigating.

The cable modem that was supplied by the @home.com folks is a Motorola Cybersurfr. The power supply that is specified to go with it was apparently made for Motorola by the Advanced Power Solutions company. The power supply is of the switching type, rather small and lightweight, of the "floor wart" variety. The model number is AD-740U-3125, part number 61785-02. Input voltage 100-240v, outputs at +5, +12, and -12v. These guys have a Web site where they listed their phone number, so they will probably be getting a phone call tomorrow regarding their fine product.

I know this is running long, but here is the most amazing part. Just to see how broadbanded the RF was that was coming out of this power supply, I set the Sony next to it and wrote down the frequencies where I was able to detect the pulsing noise. The list is as follows, all frequencies are given in kilohertz.

310-330	455-490	610-660	760-810	910-980	1060-1140
1220-1310					
1220-1310	1370-1470	1540-1610	1690-1780	1820-1940	1990-2140
2150-2280	2310-2420	2440-2590	2620-2750	2810-2890	2950-3040
3100-3210	3230-3370	3430-3530	3580-3680	3730-3850	3890-4010
4050-4170	4200-4340	4360-4500	4550-4820	4850-5470	5500-6100
6120-6575	6580-6735				

I gave up after this, although I am sure I could have continued to go upward in frequency and found more noise. This is not to say the the thing wipes out reception of all of these frequencies down in the ham shack, but on many of the lower ones the power supply is putting out hash the registers at 10dB over S9 on the Drake R-8A. As the frequency increases, the inteference decreases.

Incidentally, Gary, KG8LB, had a similar situation at his QTH that pretty much kept him off of HF for nearly a year. He finally got the cable company to change out the culprit switching power supply with an older linear type one and the problem was solved. In preparing this diatribe I noticed that a fair number of you also have Internet access via cable. Perhaps a check for general RF noise coming from your modem's PS might be in order.

My big concern in all of this is not so much that the cable company will not swap out offending power supplies for we hams who are also subscribers, since they seem more than willing to deal with the problem when called upon to do so. But, what are we going to do when we are sitting in the middle of a neighborhood full of these things? I don't imagine that they (the cable company) are going to be inclined to make arrangements to change out every power supply on our block just because we can't hear "the VE3 or K8 on 1888". There is also the issue of noisy switching power supplies finding their way home with numerous other consumer electronic devices. Like it or not, these devices will continue to proliferate due to their lower cost and increased efficiency over that of their predecessors. Keep in mind that at the lower frequencies where these things are the most obnoxious, household power lines and utility service drops can become very efficient radiators of unwanted RF energy, hence, we could have a very big problem in the not-to-distant future.

Anyway, forewarned is forearmed, so add this one to your RFI troubleshooting toolkit. Best Wishes.

"Tom"

Tom Bowes/KK8M
5529 25 Mile Road
Shelby Twp. MI 48316

Message-Id: <199904050201.TAA07957@mail-gw5.pacbell.net>
From: "Arden Allen" <gumbear@pacbell.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Twin-Lead in PVC pipe?
Date: Sun, 4 Apr 1999 19:02:30 -0700
MIME-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 7bit

Hi Scott;

> Any reason not to route 450-ohm "transmitting" ladder line thru a PVC pipe?

Don't do it if the pipe is already in use for supplying the bathroom shower! Seriously, the pipe would not absorb enough RF energy at ham power levels to be of concern. Also, if there is a chance condensate can form inside make sure you have strategically placed drain holes. Keep the ladder line horizontal in the pipe.

Arden Allen KB6NAX Vallejo, CA gumbear@pacbell.net

Message-Id: <3.0.5.32.19990404205640.05a8f100@mail1.telalink.net>
Date: Sun, 04 Apr 1999 20:56:40 -0500
To: Old Tube Radios <boatanchors@theporch.com>
From: Tom Norris <badger@telalink.net>
Subject: Other surplus in Lima area????
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Once upon a time I recall someone on the list saying something about another surplus establishment in the Lima Ohio area. Did I just imagine hearing this?

Reason I ask is I am gonna take a road trip up to Fair this week, so was just wondering of any other places to look while there.

Thanks

Tom Norris KA4RKT

Message-ID: <3708208B.5A6F@dia.reno.nv.us>
Date: Sun, 04 Apr 1999 19:31:39 -0700
From: Jack Antonio <dia@dia.reno.nv.us>
MIME-Version: 1.0

To: Old Tube Radios <boatanchors@theporch.com>
Subject: HQ-120 question
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Good evening all,

An HQ-120 followed me home today, and upon closely looking at it
I have a question. What is the stock front panel color of an HQ-120?

Is is supposed to be a light Navy grey, or a dark grey, almost black
color? My panel is the light grey, but at some point in this radios
history the panel was painted, to the point that the lettering on the
left side was completely covered, but the lettering on the right is OK.
I tried some lacquer thinner on the left side, and the lettering came
through, but against a dark grey background. Did I go too far and hit
primer?

Thanks

Jack Antonio WA7DIA
dia@dia.reno.nv.us

From: JONWEINER@aol.com
Message-ID: <a1ee9170.24397bd9@aol.com>
Date: Sun, 4 Apr 1999 22:37:13 EDT
Subject: Manual needed: Peak PD-11 preselector
To: Old Tube Radios <boatanchors@theporch.com>
MIME-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
Content-Transfer-Encoding: 7bit

I'd like to find a manual or copy of one for the above unit (circa. 1936-37).

Jon, K1VVC

Message-ID: <37083723.851D3772@bw.webex.net>
Date: Mon, 05 Apr 1999 00:08:03 -0400
From: Al Klase <skywaves@bw.webex.net>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
CC: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: HQ-120 question
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Jack Antonio wrote:

>
> Good evening all,
>
> An HQ-120 followed me home today, and upon closely looking at it
> I have a question. What is the stock front panel color of an HQ-120?
>
Mine is black.

73,
Al

--

Al Klase - N3FRQ
skywaves@bw.webex.net
Flemington, NJ 08822
Web Page: <http://www.webex.net/~skywaves/home.htm>

Date: Sun, 4 Apr 1999 21:24:06 -0700 (PDT)
From: John Kolb <jlkolb@cts.com>
To: Old Tube Radios <boatanchors@theporch.com>
cc: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: to be or not to be
Message-ID: <Pine.SCO.4.05.9904041616090.16508-1000000@sd.cts.com>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Sun, 4 Apr 1999, Lon W. Cottingham wrote:

> I goofed! The ARR-41 AM filter that I referenced in my earlier post
> should say 9.4 Khz not 9.3 Khz. The filter is actually an F500F94 526
> 9216009. I can not tell you what the shape factor is because it was a
> special order filter and does not appear in any of my data. If any of you
> have data on this filter, I would really appreciate a copy.
>
The 1971 Collins Filter catalog shows the F500F94 as 9.4 kHz @ 6 db,
19 @ 60 db, "F" case.

The F500F60, the earlier? R-648 filter, is 6.0 kHz @ 6 db, and also 19 kHz
wide at -60, indicating the 9.4 kHz filter has steeper sides to the
filter curve.

I disagree with an comment in an earlier msg that a filter
that's wider at the 60 db points sounds better because it has
better audio high freq response. For filter specifications
measured at the 6 db point, the filter curve has already
changed from the flat top portion, to the steep sided portion.

For two filters that truly measure 6 kHz wide at 6 db down, but one 12 kHz wide, and the other 23 kHz at 60 db down, there will not be enough more high freq audio to notice from the 23 @ 60 filter. In fact, if the filter curves were truly straight lines passing through the 6 and 60 db points and going up to the 0 db line, the 12 @ -60 filter would be wider measured at the -2 db bandwidth, even though both are 6 @ -6. Draw the curves yourself - I can't do justice to it with ASCII art :)

Note that mechanical filters are speced as MINIMUM bandwidth at -3 or -6 db, and MAXIMUM bandwidth at - 60 db. The F455Z-23 filter, for example, one I plotted several examples of, is spec'ed as 2.85 kHz wide @ -3 db, and 4.9 kHz @ -60. Pretty good. But a typical filter is 3.1 kHz @ -3, and 4.1 kHz @ -60, much better. More high freq audio, and better attenuation of adjacent signals.

In my R-648/ARR-41, I've replaced the F500F-60 filter, 6 @ -6, 19 @ -60, with a F500Y-60 filter, which is 6 kHz @ -6 and 13.2 @ -60, giving better rejection of adjacent stations. I prefer better performance to having a stock receiver. I've got more of these filters if someone else is interested in this mod.

John KK6IL

Message-Id: <199904050640.BAA01640@sco.theporch.com>
Subject: My Son's Depiction of a Boatanchor
Date: Mon, 5 Apr 99 06:40:23 +0000
From: <davidh@getnet.com>
To: Old Tube Radios <boatanchors@theporch.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="US-ASCII"

My 9 year old son brought me a picture the other day. He said it was a picture of one of my boatanchors that he drew. I thought some might get a kick out of it so I posted it at

<http://www.getnet.com/~davidh/boatanchor.html>

He thinks the radios look neat but has no interest in radio (although he did admit to wanting one of the console radios I am working on for his bedroom).

73,

Dave N7RK

Dave N7RK - Webmaster CADXA
Phoenix, Arizona *DXCC Honor Roll* *WAZ#23 - 75 Meter SSB*

ex-N7RK/ZB2, VK2ERK, ZM0AJN, WB6NRK, WN6IWX

Boatanchor Collector Extraordinaire preferring Hallicrafters, National
and what ever else looks interesting!

E-Mail: davidh@getnet.com
My Home Page: <http://www.getnet.com/~davidh>

Visit the Central Arizona DX Association Home page - <http://cadxa.org>

Message-ID: <370876DE.65E8@visuallink.com>
Date: Mon, 05 Apr 1999 04:39:58 -0400
From: Dan Martin <dmartin@visuallink.com>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
CC: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Twin-Lead in PVC pipe?
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Scott Townley wrote:

>
> Silly question:
> Any reason not to route 450-ohm "transmitting" ladder line thru a PVC pipe?

Scott:

I can think of no reason not to. In my experience, I've found ladder line to be more forgiving than I would have thought in regard to where and how it is routed, assuming one takes the usual precaution of keeping it away from conductive elements - rain gutters, pipes, etc. In my application, I bring my ladder line in to a basement shack with about 50 feet of it draped flat across the lawn in my backyard, more like one would ordinarily do with coax. While I have not measured any loss or coupling with the ground, it has worked and loaded consistently over time in all weather conditions. I cannot imagine routing your ladder

line through PVC pipe would be a problem. It would certainly provide some practical and cosmetic advantages in many installations.

73

Dan
WB4GRA
Winchester, VA

Message-ID: <00dc01be7f62\$1c980540\$a71bbfd1@n4fs>
From: "Mike B. Feher" <n4fs@monmouth.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: HQ-120 question
Date: Mon, 5 Apr 1999 05:44:54 -0700
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Jack -

Every one I ever had has been black, and, I had dozens. 73 - Mike

Mike B. Feher, N4FS
89 Arnold Blvd.
Howell, NJ, 07731
732-901-9193

Message-Id: <199904051000.DAA29354@mail-gw3.pacbell.net>
From: "Arden Allen" <gumbear@pacbell.net>
To: Old Tube Radios <boatanchors@theporch.com>
Cc: "Old Tube Radios" <boatanchors@theporch.com>
Subject: Re: to be or not to be
Date: Mon, 5 Apr 1999 02:45:26 -0700
MIME-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 7bit

Hi John;

> I disagree with an comment in an earlier msg that a filter
> that's wider at the 60 db points sounds better because it has
> better audio high freq response.

If you are talking strictly about frequency response I don't think there

would be a noticeable difference. If you are talking about more or higher Q filter sections to get steeper skirt selectivity with attendant phase shifts and increased ringing than common sense says the steeper filter will sound worse. From comments I've heard most folks don't like the sound of mechanical filters compared to LC filters. To get the same performance LC filters would have to be impracticably complex and expensive. As a general rule, because of the imperfections of practical filter elements, the better the specs the worse the distortion.

Arden Allen KB6NAX Vallejo, CA gumbear@pacbell.net

Message-Id: <v03007800b32e64fb5a64@[132.235.46.183]>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
Date: Mon, 5 Apr 1999 08:04:25 -0500
To: Old Tube Radios <boatanchors@theporch.com>
From: Richard Post <post@ouvaxa.cats.ohiou.edu>
Subject: Re: HQ-120 question

Jack,

Black is most common, including mine. Grey was an option.

Rich

>Good evening all,

>

>An HQ-120 followed me home today, and upon closely looking at it

>I have a question. What is the stock front panel color of an HQ-120?

>

>Is it supposed to be a light Navy grey, or a dark grey, almost black

>color? My panel is the light grey, but at some point in this radio's

>history the panel was painted, to the point that the lettering on the

>left side was completely covered, but the lettering on the right is OK.

>Jack Antonio WA7DIA

=====
Boatanchor Pix website - KB8TAD
<http://oak.cats.ohiou.edu/~postr/bapix/>
<mailto:postr@ohiou.edu>
visit the Museum of Radio and Technology website
<http://oak.cats.ohiou.edu/~postr/MRT/>

End of BOATANCHORS Digest 2491

>From ???@??? Tue Apr 06 08:37:07 1999
Message-Id: <199904060130.UAA08040@sco.theporch.com>
Date: Mon, 5 Apr 1999 20:30:12 CDT
From: Old Tube Radios <boatanchors@theporch.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: BOATANCHORS digest 2492

BOATANCHORS Digest 2492

Topics covered in this issue include:

- 1) 1L20 schematic
by nipriano@tin.it
- 2) Drake TR4 LSB Filter Needed
by "Schroeder, Russell G" <Russell.Schroeder@usa.xerox.com>
- 3) Re: Twin-Lead in PVC pipe?
by "Roberta J. Barmore" <rbarmore@indy.net>
- 4) Charging Batteries for Y2K Boatanchors.
by "Jim Zellmer" <zellmer@raccoon.com>
- 5) Re: Drake TR4 LSB Filter Needed
by Al Parker <anchor@coastalnet.com>
- 6) Re: Another Source of RFI
by John Shriver <jas@shiva.com>
- 7) Re: Line voltage
by John Shriver <jas@shiva.com>
- 8) ADMINISTRIVIA: Using The Archives
by listown@jackatak.theporch.com (Mail List Owner)
- 9) Re: Charging Batteries for Y2K Boatanchors.
by "P. J. Rovero" <provero@connix.com>
- 10) High Voltage Coupling Capacitors
by "Richard" <rbrunner@gis.net>
- 11) R390 BFO PROBLEM
by "Herendeen Robert (SMI)" <Robert.Herendeen@smi.siemens.com>
- 12) Re: High Voltage Coupling Capacitors
by Al Parker <anchor@coastalnet.com>
- 13) Wanted: Mosley CM-1 Manual
by "ROBERT F. KEMP" <rkemp@mr.net>
- 14) Re: Fun with the Eddystone
by Hue Miller <kargokult@proaxis.com>
- 15) More stuff for shipping costs
by "Benjamin D. Hall" <kd5byb@WT.NET>
- 16) Anyone near Wilmington DE?
by Tom Norris <badger@telalink.net>
- 17) Tube Testers

by Jim Roik <jnroik@escape.ca>
18) BC-610 help/info needed
by Phil Mills <plmills@ibm.net>
19) Re: HP 524 Battleship Frequency Counter
by Morris Odell <morriso@vifp.monash.edu.au>
20) Re: Line Voltage
by Morris Odell <morriso@vifp.monash.edu.au>

To: Old Tube Radios <boatanchors@theporch.com>
From: nipriano@tin.it
Subject: 1L20 schematic
MIME-Version: 1.0
Content-Type: text/plain
Message-Id: <19990405135320.CP0L12856.fep03-svc@fep08-svc.tin.it>
Date: Mon, 5 Apr 1999 15:53:20 +0200

Hi,
I am looking for the service manual or at least the schematic of a
1L20 tek plug-in spectrum analyzer.
I also have a 132 power supply to operate the 1L20.
Both are working and in very good conditions.
What could be their price
Thanks and 73

Nicola Priano IK1YWF
nipriano@tin.it

Content-return: allowed
Date: Mon, 05 Apr 1999 10:23:10 -0400
From: "Schroeder, Russell G" <Russell.Schroeder@usa.xerox.com>
Subject: Drake TR4 LSB Filter Needed
To: Old Tube Radios <boatanchors@theporch.com>
Cc: "Schroeder, Russell G" <Russell.Schroeder@usa.xerox.com>
Message-id: <9F978D0493DBD1119C2D00805FC736152DA8AD@usa0207ms1.eng.mc.xerox.com>
MIME-version: 1.0
Content-type: text/plain; charset="iso-8859-1"

Hollowstaters,

Been working on a Drake TR4 for a friend. Everything is looking good except
for the lower sideband filter. Anyone have an extra filter (or a parts
radio) available? Any leads or ideas on getting a filter would be
appreciated. TIA.

73 Russ W2DYY

Russell.Schroeder@usa.xerox.com

Date: Mon, 5 Apr 1999 08:58:02 -0500 (EST)
From: "Roberta J. Barmore" <rbarmore@indy.net>
To: Old Tube Radios <boatanchors@theporch.com>
cc: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Twin-Lead in PVC pipe?
Message-ID: <Pine.SUN.3.96.990405084746.173C-1000000@indy1>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Hi!

Twin-lead in PVC pipe? ...How big is the pipe? Seriously, most PVC pipe--the white stuff sold for drain pipes especially, isn't too bad at RF and won't upset twin-lead much. Larger pipe would, at least in theory, be better than just-barely-fits (less material in the field), but in practice I'd suspect you'd see little difference.

Invest in some 90s if you're going to do a vertical run--you'll want a kind of a "weatherhead" at the top, a 180-degree bend being good. (The kind sold for electrical applications, with a neoprene or other flexy plaastic insert, might be adaptable, though they cost a little more). At the bottom, a "P-trap" shape with a small drain hole at the lowest point will be helpful. Horizontal runs should run a little downhill away from where the pipe enters your shack or comes up to the feedthrough insulators (aim the slope back towards the "P-trap" and moisture drain). And a little something at the weatherhead end up top to keep small birds and insects from building nests inside would be a good idea.

73,
--Bobbi

KB9GKX "RJ" rbarmore@indy.net Roberta J. (Bobbi) Barmore
FISTS #3388 * G-QRP #10001 * ARRL * RSGB * WIA
Appreciator Of Vacuum-Tube Ham Gear and Vintage Keys

Message-ID: <003601be7f72\$8f0f5aa0\$1c865aa5@Raccon.com>
From: "Jim Zellmer" <zellmer@raccoon.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Charging Batteries for Y2K Boatanchors.
Date: Mon, 5 Apr 1999 09:42:39 -0500
MIME-Version: 1.0
Content-Type: text/plain;
charset="utf-8"

Content-Transfer-Encoding: 7bit

I am in the process of setting up a bank of 6 telephone stand by batteries. The cells are rated at 8 Amps for 165 hours. That should run the Hallicrafters SR-150 for a while, or perhaps the FPM-300. I have dedicated an old Sears 6 amp battery charge to the project and have a digital voltage meter inline to monitor the process. I thought there might be some old telephone men on the List that could give me the scope on charging these things.

TNX and 73

Jim Zellmer, KA0VSL

Message-Id: <3.0.5.32.19990405103608.0085bd60@mail1.coastalnet.com>

Date: Mon, 05 Apr 1999 10:36:08 -0400

To: Old Tube Radios <boatanchors@theporch.com>

From: Al Parker <anchor@coastalnet.com>

Subject: Re: Drake TR4 LSB Filter Needed

Cc: "Schroeder, Russell G" <Russell.Schroeder@usa.xerox.com>

Mime-Version: 1.0

Content-Type: text/plain; charset="us-ascii"

>Been working on a Drake TR4 for a friend. Everything is looking good except
>for the lower sideband filter. Anyone have an extra filter (or a parts
>radio) available? Any leads or ideas on getting a filter would be
>appreciated. TIA.>>73 Russ W2DYY

>

HI Russ,

Unfortunately this seems to happen all too frequently. But, have you checked to make sure the carrier freq. is set exactly between the 2 filters' freqs? If not, you'll get this problem. I went thru it a while back, got a replacement filter, then found the osc. freq. problem (after installing the new filter), didn't need the replacement after all the waiting. It went on to some one else who needed it. (sorry)

Hope you're one of the lucky ones who doesn't need it.

73,

Al, W8UT

New Bern, NC

Boat Anchors appreciated here

anchor@coastalnet.com

Date: Mon, 5 Apr 1999 11:58:46 -0400

Message-Id: <199904051558.LAA03865@brill.shiva.com>

From: John Shriver <jas@shiva.com>

To: Old Tube Radios <boatanchors@theporch.com>
CC: boatanchors@theporch.com
Subject: Re: Another Source of RFI

The FCC is always very interested in reports of equipment that violates the Part 15 radiated and conducted RF emissions requirements. Their enforcement is (to some degree) based on manufacturers ratting on each other.

I was at a computer trade show about 6 years ago, and the FCC had a booth, and they had agents walking the floor looking for anything without an FCC Part 15 sticker on it. If it didn't, they seized it and started legal proceedings.

You could look up the FCC regulations on the WWW at <http://www.access.gpo.gov/nara/cfr/index.html>. Well, Part 15 is at <http://www.access.gpo.gov/nara/cfr/waisidx/47cfr15.html>. Then do some measurements, and see if the equipment violates them. The problem is, that you have to measure absolute field strengths, which isn't easy.

By the way, violation of FCC Part 15 has criminal penalties, not just civil. Jail time.

Meanwhile, it may well be that these power supplies can be cleaned up with a snap-on ferrite block around the AC or DC cord. Very common "goof plug" for emissions.

Date: Mon, 5 Apr 1999 12:06:30 -0400
Message-Id: <199904051606.MAA03873@brill.shiva.com>
From: John Shriver <jas@shiva.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Line voltage

It should be noted that carbon filament bulbs, which were the norm until the late 1910's, were very sensitive to filament voltage. Much more so than tungsten filaments. So, there was great effort into providing them at a wide variety of voltages. Also, the line voltages were less consistent then.

Conveniently, the resistance of carbon filaments was never made very consistent. So, you made the bulb, and then tested it to figure out what voltage to label it with!

Needless to say, it was a real hassle dealing with so many different voltages of lamps. It was made a little easier by the lights being leased by the utility in many places. They knew their line voltage quite well...

Message-Id: <199904051615.LAA06926@jackatak.theporch.com>
From: listown@jackatak.theporch.com (Mail List Owner)
To: Old Tube Radios <boatanchors@theporch.com>
Subject: ADMINISTRIVIA: Using The Archives
Date: Mon, 5 Apr 99 11:15:02 CDT

Gang-

!!!THIS INFORMATION HAS CHANGED!!!!

!!!SAVE THIS FILE FOR FUTURE REFERENCE!!!!

This periodic post is designed to help everyone gain more value from their boatanchors subscription.

Often I receive an email request, or I read on the list, of someone who is aware there is an archive available with some special files with special information that is of a more permanent nature than a post to the list, but who is unaware of how to retrieve these gems.

In the archives, there are cross-reference tables for Tubes, Military Equipment Nomenclature, suggestions for restorations and modifications to our beloved fire bottle rigs, and some wonderful stories of real adventures and the people involved.

These files may be accessed by the Web... quickly and easily.
These files can also be accessed by email.

For WWW access:

- go to <http://www.theporch.com>
- select "ListProc Web Interface"
- on your first time there, click "Register For Full Account"
- follow the instructions, and BE SURE you use the email address that you have your BoatAnchors mail addressed to -- this interface will work ONLY for members of the list!

Once registered, you can:

- search the archives of previous posts (so far we haven't loaded all the previous posts online, but that is in the works;
- download the index of files;
- retrieve individual files
- manage your subscription via the web interface

AWESOME!

For email access:

Step One:

- send an email (leave the subject blank, or, if your mailer

requires a subject, type a single character, like "a" in
the subject box) to:
listproc@sco.theporch.com

Step Two:
in the body type:
index boatanchors

NOTE: The index *includes* all the previous articles now available
through the web interface, so the index is HUGE and difficult
to search -- the web interface is much easier.

Step Three:
after checking out the index for files of interest, and finding
the one or more you want to have sent to you, send another
email to:
listproc@sco.theporch.com

and, in the body, type:
get boatanchors file.name

where you substitute the name of the file from the index
for "file.name"

This should get you off to a good start. If you encounter any problems,
please let me know at the address below.

--

73

Jack, W4KH/Mobile - - - Mailing List Archiver/Owner - - -
listtown@jackatak.theporch.com - "Plus ca change, plus c'est la meme chose"
"Il n'y a que les idiots qui ne changent jamais d'idee"
Mon Apr 5 11:15:01 CDT 1999

Date: Mon, 5 Apr 1999 12:55:17 -0400 (EDT)
From: "P. J. Rovero" <provero@connix.com>
To: Old Tube Radios <boatanchors@theporch.com>
cc: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Charging Batteries for Y2K Boatanchors.
Message-ID: <Pine.BSI.3.95.990405125354.10498A-100000@comet.connix.com>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

We used to use these to power a repeater on Guam
for use in typhoon power outages.

Two cells, simple repeater, would run it continuous
for a week. These were the really big ones off

the undersea cable stations...

P. J. "Josh" Rovero	email: provero@connix.com
Oceanographer	work: rovero@sonalysts.com
Meteorologist	radio: KK1D
Curmudgeon at Large	web: http://www.connix.com/~provero/

Message-ID: <000701be7f8a\$91c3df60\$ab3029d8@blah>

From: "Richard" <rbrunner@gis.net>

To: Old Tube Radios <boatanchors@theporch.com>

Subject: High Voltage Coupling Capacitors

Date: Mon, 5 Apr 1999 13:33:39 -0400

MIME-Version: 1.0

Content-Type: text/plain;
charset="iso-8859-1"

Content-Transfer-Encoding: 7bit

Repairing panadapters, monitorscopes & oscilloscopes we need 0.1 and 0.15 microfarad 1 to 1.6 kv capacitors, which do not seem to be manufactured now. I recall discussion about using ac rated ceramic bypass capacitors which are actually good for about 3 kv dc. Can anyone enlighten my ignorance? Source, catalog no, cost, etc.

Richard Brunner, AA1P, rbrunner@gis.net

Message-ID: <7CA6B2159043D21183860000F805AC6CCCA2E8@ca02exch01.smi.siemens.com>

From: "Herendeen Robert (SMI)" <Robert.Herendeen@smi.siemens.com>

To: Old Tube Radios <boatanchors@theporch.com>

Subject: R390 BFO PROBLEM

Date: Mon, 5 Apr 1999 10:49:45 -0700

MIME-Version: 1.0

Content-Type: text/plain;
charset="iso-8859-1"

I have discovered the reason the BFO doesn't work on this R390 non A restoration project is that the BFO tuning core has been broken, leaving about 60% of the core intact and the other 40% broken into 4 pieces. I understand this is a common problem created by trying to screw the coil all the way out passed the pressure stop until the shaft separates and cracks the core. I think that I can glue the pieces together and make it work, since only the top part of the core above the shaft goes into the coil and is still in tact. Linearity is not important like in the RF deck, so I am thinking this should work.

Has anyone ever tried this? Does anyone know where to find a replacement? I haven't tried Fair yet, but I don't have much hope.

Bob/W6JZR

Message-Id: <3.0.5.32.19990405135031.0088f6a0@mail1.coastalnet.com>

Date: Mon, 05 Apr 1999 13:50:31 -0400

To: Old Tube Radios <boatanchors@theporch.com>

From: Al Parker <anchor@coastalnet.com>

Subject: Re: High Voltage Coupling Capacitors

Mime-Version: 1.0

Content-Type: text/plain; charset="us-ascii"

>Repairing panadapters, monitorscopes & oscilloscopes we need 0.1 and 0.15
>microfarad 1 to 1.6 kv capacitors, which do not seem to be manufactured now.
>I recall discussion about using ac rated ceramic bypass capacitors which are
>actually good for about 3 kv dc. Can anyone enlighten my ignorance?
>Source, catalog no, cost, etc.

Hi all,

I may have started the thread.

I'd think the ones you mention would be OK.

I got the following:

.022mf @ 2kv from TechAmerica www.techam.com 800 877-0072

.05mf @ 1600v from AES www.tubesandmore.com 602 820-5411

Used the latter in parallel for the SB-620 scanalyzer
73,

Al, W8UT

New Bern, NC

Boat Anchors appreciated here

anchor@coastalnet.com

Message-ID: <370964A3.465A@mr.net>

Date: Mon, 05 Apr 1999 18:34:27 -0700

From: "ROBERT F. KEMP" <rkemp@mr.net>

MIME-Version: 1.0

To: Old Tube Radios <boatanchors@theporch.com>

Subject: Wanted: Mosley CM-1 Manual

Content-Type: text/plain; charset=us-ascii

Content-Transfer-Encoding: 7bit

Would anyone happen to have a manual (or copy) of the Mosley CM-1 receiver. Got ahold of one - but no manual. Appears to be simple little receiver.....anyone have some thoughts on it or ever had one?

Thanks to all in advance.

Bob.

Message-Id: <3.0.5.32.19990405164058.007e3250@proaxis.com>
Date: Mon, 05 Apr 1999 16:40:58 -0700
To: Old Tube Radios <boatanchors@theporch.com>
From: Hue Miller <kargokult@proaxis.com>
Subject: Re: Fun with the Eddystone
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

At 10:23 PM 4/4/99 +1000, Morris Odell wrote:

>>From time to time a thread appears here concerning the idiosyncrasies of
>British engineering, particularly regarding their cars. Well here it
>comes again...

>

>This week I finally got out the last of the Eddystone triplets for
>restoration - the 680X.

--i recently acquired a moded 540 from 1950 which uses a similar
format, but less of it. i had always admired the lllooonnnnggg
sliderule dial but close up, i see its limitations in this
realization of the idea. i mean with a one-knob tuning system
and with wide general coverage bands. like on the top band, oops
i guess that really should read, "bottom", hi, approx 14 - 30
mc/s, the dial resolution is practically nil. well, for example
on 15 meters it's like 21.1, 21.2, 21.3 and so on, and the dial
moves along pretty rapidly -- but probably okay for AM listening.
another disappointment is the incomplete MW coverage, 500 - 1450

and then about 1650 on up. obviously, this is not a 'parlor set'
so the 500 kc/s inclusion was deemed more important, but that 'hole'
in the general coverage still seems odd & dumb.
hue

Message-Id: <3.0.32.19990405184754.007bd9a0@mail.wt.net>
Date: Mon, 05 Apr 1999 18:47:57 -0500
To: Old Tube Radios <boatanchors@theporch.com>
From: "Benjamin D. Hall" <kd5byb@WT.NET>
Subject: More stuff for shipping costs
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Greetings all...

In preparation for my upcoming move to a smaller and less expensive apartment, I need to reduce the amount of junk, I mean great stuff that I've accumulated so I don't have to haul down to the storage facility. "You know you are a radio collector when your storage shed has more square footage than the house/apartment..."

So, the following stuff is free if you'll pay the shipping via the "Rules of Ware." I want to see it go to a good home where it will be used rather than taking up space here in my apartment.

Prescision Indicator, part of AN/APN-82. Some sort of wind speed / wind direction readout, I kept it for the nice case. Don't want to part it out, hoping it is good for something to someone.

RME-45 parts - had purchased two parts units to repair my now working RME-45B. Don't have any knobs or cosmetic components, but transformers, chokes, some coils, etc... Write with your needs, I may have it.

Small scope-like thingy. Was a plug-in for something military, with 4MP1 CRT tube. What the heck it went to I'll never know, looks of high enough quality to be of Tektronix manufacture, but it doesn't say that anywhere.

More later...

Thanks and 73,
Ben

Benjamin D. Hall, KD5BYB, Engine and radio collector / operator.
Located in Houston, Texas, USA.
e-mail: kd5byb@WT.net, web: ***down for refurbishment***
"An ye harm none, do what ye will."

Message-Id: <3.0.5.32.19990405185332.009ef8f0@mail1.telalink.net>
Date: Mon, 05 Apr 1999 18:53:32 -0500
To: Old Tube Radios <boatanchors@theporch.com>
From: Tom Norris <badger@telalink.net>
Subject: Anyone near Wilmington DE?
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Have found an R390A near Wilmington, but the guy will not ship. Anyone willing to pick it up for me and haul it to "mailboxes, etc" or some such place, or maybe meet me in person halfway at some point between now and the millenium?

Am in Nashville, TN, so Wilmington is a bit of a drive for me.

Thanks

Tom KA4RKT

Please visit The Mil List for info on military communications gear:

[HTTP://www.telalink.net/~badger/millist/mi.html](http://www.telalink.net/~badger/millist/mi.html)

Click on the "Online Manuals..." link for a few manuals in PDF format. More to be added as time goes by.

ANY and ALL Contributions Welcome.

Tom Norris KA4RKT

badger@telalink.net Nashville, Tennessee, USA

Message-Id: <3.0.1.32.19990405190709.006d8a38@mail.escape.ca>

Date: Mon, 05 Apr 1999 19:07:09 -0500

To: Old Tube Radios <boatanchors@theporch.com>

From: Jim Roik <jnroik@escape.ca>

Subject: Tube Testers

Mime-Version: 1.0

Content-Type: text/plain; charset="us-ascii"

Is there anyone who could give me a bit of a tutorial on tube testers.

I have a Philco 9100, which I am told was made by Hickock and is the same as their 639. I also have the roll chart from a Stark 12-22. The Stark appears to be very similar to the Philco, the switch settings are the same, as are the buttons. Schematically they use the same tubes and appear to test the same way.

For some tubes the English (R/G) and the bias settings are the same on the Stark and on the Philco. For some others they are different. Why? This implies that the Stark and the Philco would agree on results for some tubes but not others.

What am I missing that is probably obvious.

The project today was to test a 6JB6 which is not on the roll for the Philco but is in the Stark book.

Anyone have an update for the Philco?
Best wishes.

Jim VE4AQ

Message-ID: <370951B9.8A8DBE11@ibm.net>
Date: Mon, 05 Apr 1999 19:13:45 -0500
From: Phil Mills <plmills@ibm.net>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: BC-610 help/info needed
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

I'm trying to put the finishing touches on my BC-610F project and get it working with the BC-614E speech amplifier. The BC-614E is working okay but I had to build a cable to connect it to the BC-610.....therefore, it is missing whatever is in the JB-70 junction box that keys the BC-610

from the push-to-talk.

So, anyone have a JB-70 they want to part with? Failing that, anyone have a schematic of the JB-70 that they can share?

I've thought of making a minor wiring change in the BC-614E so that the push-to-talk closes the key jack circuit....has anyone done this?

Finally, any microphone recommendations? Somehow I think that my amplified base D104 is overkill. What about a carbon microphone?

thanks & 73,
Phil
AB5TH Friendswood, TX

Message-ID: <37095297.B1121153@vifp.monash.edu.au>
Date: Tue, 06 Apr 1999 10:17:28 +1000
From: Morris Odell <morriso@vifp.monash.edu.au>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: HP 524 Battleship Frequency Counter

Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Hi Fred,

> Saw your post on BA concerning the mechanically dampened tube shields and noticed that you own an HP 524. What can you tell me about it? I have a few HP newsletter notes on it, but have never seen one or heard any comments on it before. Since I already own and repair some shack heaters (Tek 585A and Tek 555) in the 100 tube and near kilowatt power usage range, the HP 524 intrigues me. If I found one, could it actually be useful on my workbench?

I don't think it would fit on your workbench!! My 524B is a rack mount version and about twice the volume of a Tek RM35 (535) 'scope. It certainly is a shack heater and I must confess I've used it in winter with that ulterior motive.

The 524B was one of my first boatanchors. I first saw one when I was an EE student in the 1960s and the 524C at the University lab was the last word in sexy test gear. I was able to buy a surplus one for \$100 only a few years later. As I understand it, HP pioneered frequency counters as we know them and the 524 was their ultimate tubed counter. It's an interesting machine because it's so complicated and the enormous number of different tube technologies it uses - conventional tubes, thyratrons, phantastrons, nuvistors, tuning indicators, RF multipliers, pulse circuits, delay lines, crystal oven etc etc. It weighs about 100 lbs and has some 100 tubes depending on which plugin is installed. In those days the police used to use it to calibrate their "rubber strip" speed traps and we would often see a couple of burly traffic cops in the EE lab with their arms full of little boxes.

In basic form it's an 8 digit decade counter with a maximum frequency of 10 MHz. It has frequency, period, ratio and manual gate modes as well as self-checking with its own oscillators. It accepts a series of plugins including a blank, a video amp, a stop-start module and several heterodyne frequency converters up to 500 MHz. There were 4 models suffixed A to D and distinguishable by the readout technology. My 524B has vertical columns of 10 neons for the last 6 digits and centre-zero meters calibrated from 0 to 9 for the first two. The C was all neon columns and the D used nixie tubes slaved to internal neon columns using photoresistors.

Internally there is an ovened crystal oscillator at 100 KHz (accuracy quoted as 1 part in 10^8 short term) which is multiplied up to 10 MHz to provide a heterodyne signal for the frequency converter plugins. The timebase pulses are divided down in decades with "Phantastrons" - a nifty one tube circuit that got its name because it was "fantastic". The counters proper are vacuum tube flip-flops - the 6 slowest decades are plug-in units using 4 5963s (12AU7s). The fast counters are very elaborate affairs using 6AH6s, steering diodes and other tubes to decode the readout. There are all sorts of fancy pulse circuits involved in input signal shaping and resetting the counters, some of

which use thyratrons and blocking oscillators. The signal gate is controlled by a very fast tube flip-flop feeding a delay line which unfortunately I had to remove as it was broken. The delay line had a nuvistor preamp. The power supply is of heroic proportions with massive transformers and chokes, 2 6080s and several 5R4 and 5Y3 rectifiers.

The oven is on as long as it's plugged in and there's a pilot light and dial thermometer on the front panel. When you switch it out of standby the 10 inch fan roars into life as it gets going. The neon columns start cycling and if there is a freq. converter plugged in, the tuning eye glows green. It's a wonderful device - my kids used to like playing with the "counting machine" and seeing how quickly they could operate the manual gate switch!

Is it useable nowadays? Definitely yes for frequencies below 10 MHz and period measurement. Above 10 MHz you have to tune the frequency converter like a multiband radio but you can still get a useable result, but it's cumbersome compared to a fast counter or prescaler.

Although I have much smaller and faster counters now I still maintain the 524 and exercise it (in winter). I don't keep the oven going all the time these days as I don't trust a 35 year old thermostat not to stick in the "on" position. I'm always sorry to see the odd post on BA about these magnificent pieces of history being trashed. I did get a post from another list member who has 2 of them in working condition which I was really pleased to see (Hi Keith!).

Well, I've written more than I intended, but I hope you found it interesting.

73 de Morris VK3DOC

Message-ID: <37096304.1226BFD7@vifp.monash.edu.au>
Date: Tue, 06 Apr 1999 11:27:32 +1000
From: Morris Odell <morriso@vifp.monash.edu.au>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Line Voltage
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Hi all,

Arden Allen wrote an excellent discussion of issues surrounding leaky caps and the associated troubleshooting. I thought I'd add a tale of a recent experience I had with a faulty cap and the damage control issues arising from it.

The patient was a nondescript plastic "mantel" AM radio that a friend asked it

I could fix. The Aussie equivalent of a AA5, it had a power transformer, and a 5 valve economy type superhet design which minimized the number of capacitors presumably because they were more expensive than resistors. There were only 2 electrolytics and 4 waxed paper caps in the entire set! This turned out to be an important point.

The symptoms were a dead radio with a soft hum in the speaker as it warmed up. Measurements showed B+ to be 150 volts (normally 250) and zero volts on the 6AQ5 plate. Back bias was -45 volts instead of the expected -12. Removing the 6AQ5 made no difference to anything.

Experienced readers will by now have diagnosed a shorted output transformer primary or similar. In fact the fault was a gooey 0.001 uf waxed paper cap from the plate of the 6AQ5 to ground, which was a dead short. Replacing it brought the set to life.

What I thought was interesting was the post mortem. The shorted cap had the effect of placing the output transformer primary across the B+ line and raising B+ current to nearly 4 times normal. Surprisingly neither the 6V4 rectifier nor the output transformer were damaged, probably because of the limited time the set was turned on in unworking condition. The 6AQ5 had +150 on the screen and zero on the plate - normally a recipe for disaster. However, because of the economy back bias design which eliminated a cathode resistor and bypass cap, the back bias increased and the 6AQ5 grid saw -45 volts, effectively cutting it off and preventing damage. If the 6AQ5 had been cathode biased, there would have been excessive screen current drawn which could have damaged the tube.

An interesting "fail-safe" mechanism from the 6AQ5's point of view which I'm sure was not thought of by the set's designer. Of course, the 6V4 and output transformer were another thing altogether - definitely at risk of releasing the smoke!

73 de Morris VK3DOC

End of BOATANCHORS Digest 2492
